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Noted by Mr. Williams

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Revised

30 January 1961

MEMORANDUM FOR: Mr. Allen Evans, State (INR)
Colonel B. R. Brown, USA (ACSI)
Captain H. W. McElwain, USN (CNJ)
Colonel R. M. Lawson, USAF (AFCIN 2B3)
Colonel K. T. Gould, USA (J-2, The Joint Staff)
Colonel R. P. Halloran, USAF, Director of Operational Services, NSA
Mr. Randolph V. Zander, Defense (OSO)

SUBJECT: NIE 11-8-61: SOVIET CAPABILITIES FOR LONG RANGE ATTACK

1. The attached terms of reference are forwarded for review.
2. It is requested that your representatives meet with us at 1000, Wednesday, 8 February in Room 115 Administration Building to discuss these terms.

Chester L. Cooper
CHESTER L. COOPER

Deputy Assistant Director
National Estimates

30 Jan 61

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C E N T R A L I N T E L L I G E N C E A G E N C Y

30 January 1961

S U B J E C T : T E R M S O F R E F E R E N C E : NIE 11-8-61: SOVIET CAPABILITIES
F O R L O N G R A N G E A T T A C K

T H E P R O B L E M

To estimate probable trends in the strength and deployment of Soviet air and missile weapon systems suitable for long range attack, and in Soviet capabilities for such attack, projecting forward for about five years where possible.*

S C O P E A N D M E T H O D

1. This estimate will supersede NIE 11-8-60, published on 1 August 1960. It is scheduled for completion in May 1961. In the Discussion section of the new estimate, we propose to treat the problem of numbers of Soviet weapons somewhat more generally than

* The weapon systems considered are heavy and medium bombers, related air-to-surface missiles, ground launched missiles with ranges of 700 nautical miles or more, and submarine-launched missiles.

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we did in NIE 11-8-60. We propose to describe those aspects of the problem on which there is agreement in the intelligence community, and to set forth briefly and concisely any areas of disagreement. We also plan to include in the estimate several factors affecting overall Soviet capabilities, such as reconnaissance and ECM, which we have not previously covered in our papers on long range attack.

2. One of our objectives is to produce a Discussion section considerably shorter than that of NIE 11-8-60. We intend to rely heavily on Annexes for the detailed treatment of specific problem areas. The problem areas to which we desire to direct special attention in preparing NIE 11-8-61 are listed later in these terms. In each case, contributors should prepare both a generalized statement and a detailed analysis for backup and possible use in an annex. Where a particular agency or committee is the primary contributor, this is indicated by a marginal note.

SPECIFIC PROBLEM AREAS

A. General Soviet Policy

1. In view of the observable trends in Soviet force structure, and in military and strategic doctrine, what broad policies

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do the Soviets appear to be following in the further development of forces for long range attack?

2. At what general pace, and with what degree of urgency, are the Soviets acquiring additional capabilities with weapon systems in the categories of ground launched missiles, submarine launched missiles, and aircraft delivery systems?

B. Soviet Operational Concepts

1. In the event of war during this period, what would be the general method of operational employment of Soviet forces for long range attack against US and other Western bases, forces, and strengths? What types of targets would the Soviets seek to attack, with what means, and with what general timing? How would this method of operational employment change as the period advanced?
2. What means are available to the Soviets for the effective command, coordination, and control of forces for long range attack? Are new means likely to be developed?

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C. Soviet Programs for Production and Deployment of Missiles

1. What in your judgment are the likely current force goals of Soviet deployment programs in the various types of missiles for long range attack? Include consideration of theoretical Soviet numerical requirements for these missiles. To what extent is Soviet programming likely to have been or to be influenced by such theoretical requirements?
2. What are the likely dates, past or future, of various milestones in Soviet programs for production and deployment of missiles -- for example, the dates of initial operational capability, beginning of serial production, start of troop training, beginning of planned operational buildup, etc.?
3. What is the evidence bearing on likely Soviet rates of production and deployment of missiles? What are the major factors affecting these rates? For ICBMs, what are the implications of the 1959-1960 firing program at Tyura Tam, and of Soviet development of heavy and light nosecones? Consideration should be given to any constraints which might affect Soviet programs, such as economic factors and the availability of nuclear materials for warheads.

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4. What deployment concepts for ground launched ballistic missiles, especially the ICBM, can be adduced from the available evidence or from analogy with other Soviet military programs? What is the estimated time required for the construction and preparation of the Soviet ICBM site configuration?
5. What general training philosophy do the Soviets appear to be following in the training of specialists and crews for the operational employment of missiles for long range attack? How is this reflected at Tyura Tam, Kapustin Yar, and other test ranges?
6. Is the USSR likely to deploy ballistic missiles at relatively constant rates? What circumstances would be likely to cause changes in Soviet force goals or in Soviet production and deployment rates? (e.g., follow-on ICBM's, the Soviet antimissile program, and changes in the strength and composition of Western forces.)
7. In sum, what in your judgment is the probable range of Soviet operational strength in missiles for long range attack now and in the future? Contributors should set forth a comprehensive summary of the evidence and argument bearing on their

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conclusions. The available evidence, or lack of it, should be assessed in relation to US intelligence collection capabilities from all sources.

D. Performance Characteristics of Soviet Long Range Weapons Systems

- (from NIE
11-5-61)
- SIC
- Air Force
1. Table of ground-launched missile characteristics.
 2. Tables of bomber performance characteristics. New tables should be prepared, showing the performance of Soviet bomber weapon systems, with and without air-to-surface missiles, and including performance under conditions of low as well as high altitude operations. For each bomber type, capabilities to carry decoys, ASMs, and other penetration aids should be shown.
 3. Bomber operational factors. Brief discussion and summary tables should be prepared on: (a) Soviet in-commission rates and staging capabilities with and without a period of preparation; (b) abort rates taking into account staging, refueling, and other pertinent factors; (c) navigational and bombing techniques and accuracies, including the effect if any of navigational errors on ASM utilization.

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Navy 4. Sublaunched missile system performance. Brief discussion and summary tables on the performance of submarines and their missiles, and the operational factors affecting their employment as complete weapon systems. Include such factors as navigational techniques and accuracies, time required to fix position, ready, and launch, etc.

Air Force, 5. Maps of potential target coverage by bombers and missiles.
Navy

Recommend and contribute to maps showing ranges which could be achieved against US and overseas areas by various types of bombers and missiles under realistic conditions.
Include antiship operations by ASM-equipped BADGERs.

E. Deployment of Weapon Systems

Air Force 1. Bomber deployment map.

Contribute to an updating of the deployment map in NIE 11-8-59, adding the deployment of BADGERs in Naval and Tactical Aviation. Add, from NIE 11-2-60, nuclear weapons storage facilities associated with bomber bases.

CIA/RR 2. Missile deployment.

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(coordinate
with GMAIC)

Brief discussion and map describing areas of deployment where known, and discussing the factors likely to affect Soviet choice of deployment areas. Include any evidence of Soviet storage facilities for missile warheads.

F. Bombs and Warheads

JAEIC
(coordinate
with SIC)

1. What are Soviet capabilities to employ nuclear, chemical, biological, and radiological weapons in their long range delivery systems? Include summary tables.
2. What factors would affect Soviet selection of these weapons, and what choices are they likely to make?

G. Soviet Long Range Reconnaissance Capabilities

SIC
(coordinate
with JAEIC,
GMAIC)

1. What are Soviet requirements and capabilities for reconnaissance in conjunction with long range attacks, at present and as the period advances? Include armed reconnaissance against targets of uncertain location.
2. As the period advances, what reconnaissance capability can the USSR acquire through the use of satellites and of manned or unmanned vehicles? Is the USSR likely to develop vehicles expressly for this purpose?

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3. Is the USSR likely to obtain a capability to acquire and act upon information during the course of a major long range strike? How good a capability for damage assessment can they acquire?

H. Soviet Capabilities for Electronic Warfare

SIC
(Coordinate
with JAEIC,
GMAIC)

1. What are the USSR's capabilities to support its long range striking forces by ECM? Include airborne and shipborne measures.
2. Direct special attention to possible Soviet measures to create massive disruption of Western detection and communication capabilities by ECM satellites, by long range jamming, by high altitude nuclear detonations, or by other unusual means. Would the use of such measures have any adverse affect on Soviet offensive or defensive operations?

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